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Water Management Coordination Team Report Assets for End of Stage I

In-Delta Storage

Webb Tract and Bacon Island

1. Project Description

240 TAF storage capacity 11,000 acres of reservoir 9,000 acres of habitat (Bouldin and Holland)

Reference: Delta Wetlands DEIR/EIS, December 1995

2. Project Costs

\$779 million estimated capital costs \$10 million estimated annual O&M costs \$236 to \$328 per acre-foot

Reference: CALFED Storage and Conveyance Components, Facility Descriptions and Cost Estimates, October 1997

However, actual cost per acre-foot is likely to be higher because of reduced annual average yield relative to October 1997 predictions.

3. Timing

DEIR/S completed December 1995, REIR/EIS in January 2000 Water rights hearing held summer 1997, continued hearing in spring 2000 2-3 year construction construction schedule

4. Project Benefits

173 240 TAF of additional Delta exports per year
115 TAF of additional Delta exports on average but none in many dry years
Creation of 240 TAF of new in-Delta storage
Potential salinity benefits from release of low salinity water
Elimination of 92 unscreened ag diversions
Elimination of 56 TAF of foregone ag discharges
Creation of 9,000 acres of wetland and wildlife habitat (Bouldin and Holland)

Reference:

DNCT gaming EWA Game 1, Summer 1999 Delta Wetlands DEIR/EIS, December 1995 2728

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7.5. Impacts on Others Project Impacts

Potential water quality impact on Delta TOC levels

Potentially significant water quality impacts: increased Delta TOC and salinity levels

Potential seepage impacts to neighboring islands

Potential danger from levee failure without substantial levee strengthening

5.6. Assumed Duration of Project Benefits

Benefits are assumed to be permanent

6-7. Assumed Operational Restrictions

4,000 cfs average monthly diversions
4,000 cfs average monthly discharges
Diversion restrictions October to March for fishery protection
Diversion prohibitions April to May for fishery protection
Discharge restrictions January to July for fishery protection

Reference: FWS and NMFS biological opinions, May 1997
DFG revised biological opinion August 1998

DI'CI Tevised biological opinion August 1998

Additional operation constraints will likely be necessary to mitigate for water quality impacts and to ensure levee stability and to mitigate seepage impacts.

7. Impacts on Others

Potential water quality impact on Delta TOC levels
Potential seepage impacts to neighboring islands

[Major] Permits or Other Approvals Needed

Water rights permit to divert and store surplus flows 404 permit to construct levee improvements NMFS and DFG consultation for spring run chinook salmon

Procedure for Obtaining Permits and Other Approvals

SWRCB issues water rights permit USACE issues 404 permits FWS, NMFS, and DFG issue biological opinions

10. Implementation Responsibility

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Delta Wetlands or project buyer

1. Necessary Cooperating Parties

DWR and USBR for operations involving SWP and CVP facilities Fish and wildlife agencies to monitor the implementation of biological opinions David A. Forkel

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Bacon Connected to Export Pumps

1. Project Description

4,000 cfs pipeline connection from Bacon to CCFB Requires Bacon Island storage to be in place (see above)

2. Project Costs

\$218 million estimated capital costs (no new storage)
\$1 million estimated annual O&M costs
\$94 to \$130 per acre-foot (in addition to Bacon storage costs, see above)

Reference: CALFED Storage and Conveyance Components, Facility Descriptions and Cost Estimates, October 1997

3. Timing

Feasibility and environmental studies could take 3 to 5 years 2-3 year constuction schedule

4. Project Benefits

108-150 TAF of screened Delta exports per year

Reference: DNCT gaming EWA Game 1, Summer 1999

5. Assumed Duration of Project Benefits

Benefits are assumed to be permanent

6. Assumed Operational Restrictions

4,000 cfs capacity

7. Impacts on Others

Potential impact to landowners between Bacon and CCFB
Potential impact to Santa Fe railroad
Potential impact to HWY 4
Potential impact to EBMUD aqueduct
Potential impact to gas pipeline

8. [Major] Permits or Other Approvals Needed

404 permit to pipeline

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Biological opinions for terrestrial and fishery species Streambed alteration permit for siphons under channels

9. Procedure for Obtaining Permits and Other Approvals

USACE issues 404 permits FWS, NMFS, and DFG issue biological opinions

10. Implementation Responsibility

Project proponent

11. Necessary Cooperating Parties

DWR and USBR for operations involving SWP and CVP facilities Fish and wildlife agencies to monitor the implementation of biological opinions David A. Forkel

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Woodward Island and Victoria Island

1. Project Description

108 TAF storage capacity (EWA gaming assumed 80 TAF) 8,300 acres of reservoir Assume 6.800 acres of habitat

Reference: CALFED Storage and Conveyance Components, Facility Descriptions and Cost Estimates, October 1997

2. Project Costs

\$666 million estimated capital costs \$7 million estimated annual O&M costs \$483 to \$670 per acre-foot

Reference: CALFED Storage and Conveyance Components, Facility Descriptions and Cost Estimates, October 1997

3. Timing

Feasibility and environmental studies could take 3 to 5 years Water rights hearing could be held in 2005 2-3 year constuction schedule

Project Benefits

70-97 TAF of additional Delta exports per year Creation of 108 TAF of new in-Delta storage Potential salinity benefits from release of low salinity water Elimination of unscreened ag diversions Elimination of foregone ag discharges Creation of 6,800 acres of new wetland and wildlife habitat

Reference: DNCT gaming EWA Game 2, Summer 1999

5. Assumed Duration of Project Benefits

Benefits are assumed to be permanent

6. Assumed Operational Restrictions

4,000 cfs average monthly diversions
4,000 cfs average monthly discharges
Diversion restrictions October to March for fishery protection

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Diversion prohibitions April to May for fishery protection No discharge restrictions, directly connected to CCFB

7. Impacts on Others

Potential water quality impact on export TOC levels
Potential seepage impacts to neighboring islands
Potential impact to Caltrans HWY 4
Potential impact to EBMUD aqueduct
Potential impact to gas and WAPA power transmission lines

8. [Major] Permits or Other Approvals Needed

Environmental evaluations (EIR/EIS)
Water rights permit to divert and store surplus flows
404 permit to construct levee improvements
Biological opinions for all species
Streambed alteration permit for siphons under channels

9. Procedure for Obtaining Permits and Other Approvals

SWRCB issues water rights permit USACE issues 404 permits FWS, NMFS, and DFG issue biological opinions

10. Implementation Responsibility

Project proponent

11. Necessary Cooperating Parties

DWR and USBR for operations within SWP and CVP system Fishery and wildlife agencies to implement biological opinions Caltrans for HWY 4 impacts Gas and WAPA for power transmission impacts